Example Data Summary Sheet for Infiltration Basin Design

(Note: Example only – no technical standard published as of 5/28/03)

Design Element	Design Data
Site assessment data: (see attached maps)	
Contributing drainage area to basin (subwatershed A)	120 acres
Distance to nearest private well (including off-site wells)	> 100 feet
Distance to municipal well (including off-site wells)	> 1200 feet
Wellhead protection area involved?	No
Ground slope at site of proposed basin	average 3%
Any buried or overhead utilities in the area?	No
Proposed outfall conveyance system/discharge (w/ distances)	35 ft. to CTH "U" Road ditch 1000 ft. to wetland
Any downstream roads or other structures? (describe)	Yes – 36" cmp road culvert
Floodplain, shoreland or wetlands?	No
Soil investigation data (see attached map & soil logs):	
Number of soil investigations completed	3 (in basin area)
Do elevations of test holes extend 4 ft. below proposed bottom?	Yes (see map)
Average soil texture at pond bottom elevation (USDA)	Sandy loam
Infiltration rate at basin bottom and method of analysis	2 in/hr, double-ring infiltrometer
Distance from pond bottom to bedrock	> 5 feet
Distance from pond bottom to seasonal water table	Pond bottom 2 below mottling No water observed in test holes
General basin design data (see attached detailed drawings):	
Basin bottom area	1.5 acres
Basin bottom elevation	elev. 900.0
Top of berm elevation (after settling) and width	elev. 904.0 / 10 feet wide
Basin storage below outlet	3.1 ac-ft
10% of 2-yr 24-hr post-development runoff volume	3.0 ac-ft
Time to completely infiltrate stored water	68 hrs
Sediment forebay size & depth	.16 acres (13% pool size)/5 feet
Additional design features	3' x 3' x 50' rock trench

Design Basin Inflow, Outflow & Storage Data

(see attached hydrographs and detail drawings)

Inflow Peak/Volume	Maximum Outflow Rate	Max. Water Elevation	Storage Volume at Max. Elev.	Outflow Control Structures*
1-yr./24 hr. (volume)	.7 cfs (34 hr. drawdown)	900.7 ft.	2 acre feet	#1 and 3
24.3 cfs (Post 2-yr./24 hr. peak)	11 cfs	901.0 ft.	3.1 acre feet	#1 and #3
72 cfs (Post 10-yr./24 hr. peak)	35 cfs	902.0 ft.	4.5 acre feet	#1, 2, and 3
171 cfs (Post 100-yr./24 hr. peak)	143 cfs	903.0 ft.	6.0 acre feet	#1, 2, 3 and 4

*** The controlling elements are summarized below (See attached detail drawing of outlet structure):**

#1 = 3 inch orifice in outlet riser– flow line elev. @ 900.0 (1.3 ft. max. head)

#2 = 12 in wide 2 foot high outlet riser – flow line elev. @ 901.3 (.7 ft. max. hydraulic head)

#3 = 12 inch diameter smooth wall pvc pipe – flow line elev. @ 900.0 (3.0 ft. max. hydraulic head)

#4 = 30 foot wide earthen/grass emergency spillway – flow line elev. @ 902.0 (1.0 ft. max. depth)